Amendments to the Drawings:

The attached (7) sheets of drawings includes changes to Figs. 1-13. These sheets, which include Figs. 1-13, replace the original (8) sheets including Figs. 1-13.

Attachments: (7) Replacement Sheets

(8) Annotated Sheets Showing Changes

Remarks

Claims 1-26 are pending in this application, of which claims 1-26 have been rejected. Applicant respectfully traverses these rejections, however by this paper, Applicant amends claims 1, 2, 5-8, 10-13, 15, 17 and 20 and cancels claim 4 to further prosecution. The drawings are objected to by the Examiner. By this paper Applicant has amended Figures 3 and 8; and has amended paragraphs 0110, 0112 and 0113 of the specification to address the Examiner's objections.

Additionally, by this paper Applicant presents the following amendments to Figs. 1-13 and paragraphs ([0017], [0111], [0116], [0120], [0131] and [0133]) to address additional informalities. Applicant asserts that no new matter is added by these amendments.

Applicant resubmits all of the drawings (Figs. 1-13) on Replacement Sheets 1-7 to remove the unintended shading present on the drawings as originally filed. Additionally Applicant presents Fig. 12 and Fig. 13 on a single sheet, thereby reducing the overall number of sheets from 8 to 7.

Applicant amends paragraph 0017 to address a typographical error, "ml/cm [[m1/cm]]". (Paragraph [0017]).

Reference character 53 was used to designate both the O-ring groove and the horizontal member. Applicant has amended Fig. 3 and paragraph 0111 such that reference numeral 42 refers to the O-ring groove; "[a]n O-ring groove 42 [[53]] assembled with an O-ring". (Paragraph [0110]). Additionally, Fig. 10 has been amended to include reference character 53 referring to the horizontal member 53.

Paragraph 0116 has been amended so that the prior "vertical members" of the clamp arrangement 55 are now referenced as "vertical parts" to avoid confusion with the vertical

member 54. Paragraph 0116 as amended states: "[h]orizontal members 52 and vertical parts form a clamp arrangement 55.

Figure 7 has been amended such that the end caps 61 are identified by reference character 61 and the flow distribution modules 40 are identified by reference character 40.

Figure 10 has been amended to remove reference character 79, which was not described in the specification. Additionally paragraph 0131 has been amended to add reference characters 78 (tray) and 80 (spray distribution module ends) in the description corresponding to Fig. 10.

Drawing Objections

The Examiner has objected to the drawings under 37 CFR 1.84(p)(4), because reference characters: 54, 55, 56 and 57 have each been used to reference multiple elements. (Page 2 of the Office Action of October 1, 2009). Accordingly Applicant has amended the drawings and specification to address the Examiner's objections.

The Examiner states that "[r]eference character '54' has been used to designate both groove and vertical member". (Page 2 of the Office Action of October 1, 2009). By this paper Applicant has amended paragraph 0110 of the specification and Fig. 3 of the drawings, such that reference character 43 now designates the distribution groove and reference character 54 continues to designate the vertical member. Paragraph 0110 as amended states: "[i]nlet 44 is connected to distribution groove 43 which distributes the flowable material over the width of the module."

The Examiner states that "reference character '55' has been used to designate both inlet and clamp arrangement". (Page 2 of the Office Action of October 1, 2009). By this paper Applicant has amended paragraph 0110 of the specification and Fig. 3 of the drawings such that reference character 44 now designates the inlet, and reference character 55 continues to designate

the clamp arrangement. Paragraph 0110 states: "[i]nlet 44 is connected to distribution groove 43 which distributes the flowable material over the width of the module."

The Examiner states that "reference character '56' has been used to designate both grooves and bolts". (Page 2 of the Office Action of October 1, 2009). By this paper Applicant has amended paragraph 0112 of the specification and Figures 3 and 8 of the drawings, such that reference character 45 now designates the grooves, and reference character 56 continues to designate the bolts. Paragraph 0112 as amended states: "[g]rooves 45 provide a path for the flowable liquid in the direction of the electrostatic field."

The Examiner states that "reference character '57' has been used to designate both sheet and O-ring." (Page 2 of the Office Action of October 1, 2009). By this paper Applicant has amended paragraph 0113 of the specification and Fig. 4 of the drawings, such that reference character 58 now designates the sheet and reference character 57 continues to designate the O-ring. Paragraph 0113 as amended states: "[n]onconductive foil or sheet 58 is placed above the conductive strip 59, and non-conductive foil or sheet 60 is placed below the module."

Claim Rejections - 35 U.S.C. § 112 ¶ 2

The Examiner has rejected claims 5, 8, 10, 11, 12, 13 and 15 under 35 U.S.C. § 112 ¶ 2 for insufficient antecedent basis.

Rejection of claim 5

The Examiner states that there is insufficient basis for the limitation "target bars" in claim 5. (Page 3 of the Office Action of October 1, 2009). Claim 1 as amended includes the limitation "one or more target bars to define one or more electrostatic fields". Claim 5 depends from claim 1. Therefore claim 1 as amended provides sufficient antecedent basis for "the target bars" limitation of claim 5.

Rejection of claim 8

The Examiner states that there is insufficient basis for the limitation "flowable material supply system" in claim 8. (Page 3 of the Office Action of October 1, 2009). Claim 8, as amended depends from claim 7. Claim 7 includes the limitation, "a flowable material supply system". Therefore claim 8 as amended now depends from a claim that provides sufficient antecedent basis for "the flowable material supply system" limitation.

Rejection of claim 10

The Examiner states that there is insufficient basis for the limitation "conductive charge imparting parts" in claim 10. (Page 3 of the Office Action of October 1, 2009). Claim 10 as amended introduces "solid thin conductive charge imparting parts" and therefore satisfies antecedent basis requirements.

Rejection of claim 11

The Examiner states that there is insufficient basis for the limitation "the drip proof stop of the spray action" in claim 11. (Page 3 of the Office Action of October 1, 2009). Claim 11 as amended introduces "a drip proof stop of a spray action" and therefore satisfies antecedent basis requirements.

Rejection of claim 12

The Examiner states that there is insufficient basis for the limitation "charging strip" in claim 12. (Page 3 of the Office Action of October 1, 2009). Claim 12 depends from claim 11. Claim 11 as amended depends from claim 10. "[A]t least one charging strip" is introduced in claim 10, therefore claim 12 now depends from a claim that provides sufficient antecedent basis for "the charging strip" limitation.

Rejection of claim 13

The Examiner states that there is insufficient basis for the limitation "the drip proof stop of the spray action" in claim 13. (Page 3 of the Office Action of October 1, 2009). Claim 13 as amended depends from claim 12, and claim 12 depends from claim 11. Claim 11 as amended introduces "a drip proof stop of a spray action" limitation, therefore claim 13 as amended depends from a claim that provides sufficient antecedent basis for "the drip proof stop" limitation.

Rejection of claim 15

The Examiner states that there is insufficient basis for the limitation "the precise stacked metering pump" in claim 15. (Page 3 of the Office Action of October 1, 2009). Claim 15 as amended depends from claim 14. Claim 14 introduced "a precise stacked metering pump". Therefore claim 15 as amended, depends from a claim that provides sufficient antecedent basis for "the precise stacked metering pump" limitation.

Claim Rejections - 35 U.S.C. § 102(b)

Rejection of claims 1-2, 5, 7, 10, 11, 19 and 24 over Wichmann

Claims 1-2, 5, 7, 10, 11, 19 and 24 are rejected under 35 U.S.C. § 102(b) as being anticipated by Wichmann et al. (US Patent No. 5,209,410), hereinafter "Wichmann".

Claim 1 has been amended to include limitations previously presented in claim 2 ("the flow distribution modules are positioned at two outside surfaces of a vertical member for providing parallel spray") and in claim 4 ("one or more target bars to define one or more electrostatic fields, in which the target bars are separate from a catch tray and are formed to have high and low parts, to create distinctive electrical fields").

Claim 1 as amended requires "the flow distribution modules are positioned at two outside surfaces of a vertical member for providing parallel spray". The Examiner relies on Wichmann's (nozzle 25, front member 70, rear member 90 and shim 112) for satisfying the flow distribution module limitation and Wichmann's (fingers 116) for satisfying the members limitation. (Page 4 of the Office Action of October 1, 2009). Wichmann teaches a nozzle 25 having a front member 70 and a rear member 90 with a shim 112 therebetween. (Wichmann Fig. 2 and Fig. 4). Flowable material enters Wichman's nozzle 25, and collects at a common dispensing "edge 29 defined by mating edges 73 and 93 as shown in FIG. 4" which exits the nozzle as a single spray. (Wichmann Col. 5, lines 47-48, and Col. 8, lines 60-64). Applicant discloses flow modules 40 positioned at two outside surfaces of the vertical member 54. (See Fig. 4). The vertical member 54 spaces the flow modules 40 apart for creating parallel spray. (See also Figs. 9-13). Applicant's flow distribution modules provides improvements in the distribution of the flowable material as compared to the Wichmann nozzle assembly because "[a] finer spray can be created when a given flow is distributed over more than one spray." (Paragraph [0054]). Wichmann does not teach "flow distribution modules . . .for providing parallel spray", rather Wichmann teaches nozzles 25 for providing single spray, and therefore claim 1 is not anticipated by Wichman.

Further, claim 1 as amended also requires "one or more target bars to define one or more electrostatic fields, in which the target bars are separate from a catch tray and are formed to have high and low parts, to create distinctive electrical fields." (emphasis added). In his rejection of claim 4, the Examiner relies on Wichmann's inductor bars 42 for satisfying the "target bars" limitation, and Daniel (US Patent No. 4,790,155) for satisfying the "catch tray" limitation. (Page 8 of the Office Action of October 1, 2009). Wichmann teaches a "pair of inductor bars 42 are illustrated as being spaced in substantially parallel relationship from the dispensing edge. . . of each nozzle 25. (Fig. 2, Wichmann, Col. 5, lines 45-48). Wichmann does not teach any shaping or "high and low parts" of the inductor bars 42 or any benefits from such shaping.

Applicant discloses a system where the shape or "high and low parts" of the target bars allow the user to control the spray of the flowable material. (See Paragraphs 0127-0130). Applicant asserts that it should be appreciated that an electrostatic field of constant strength occurs between two equidistant conductors of constant shape which are charged at different voltages. The distance between the charging strips and the target bars is a factor in the determination of the electrostatic field. (See Paragraphs 0127-0130). Thus by including "high and low parts" in the target bar, the distance (and eletrostatic field) changes to allow the control of the direction of the spray. "A gapped spray is facilitated not only by the width of a flow distribution module but also by providing target bars that are separate from the normally used catch trays and the like, and that are shaped to define the gapped spray pattern. ([Paragraph 0067]). The gapped spray pattern allows the spray of only a portion of a material, which is desired in some applications.

> With reference to Figure 9, applicant discloses:
>
> an application whereby a tissue paper web 73 is sprayed with a high melting point lotion on both sides of the web.
>
> The paper tissue substrate is sprayed using a gapped spray 74 which is obtained by having grooves in the equivalent areas of the flow distribution modules, and by having the target bars 50 shaped with raised parts to attract and direct the spray where it is required. . . .
>
> The spray is gapped and the unsprayed areas is where the multiply tissue paper is subsequently bonded together by mechanical means. The ply bonding of multiply tissue paper is more difficult when lotion is applied, so it is an advantage not to apply lotion in these areas, besides reducing cost.

(Paragraphs [0127]-[0130], emphasis added). Since Wichmann teaches a nozzle assembly having inductor bars and not target bars having high and low parts to create distinctive electrical fields, claim 1 is not anticipated by Wichmann.

Claims 2, 5, 7, 10, 11, 19 and 24 depend from claim 1 and are not anticipated for at least the reasons stated above with reference to claim 1.

Further claim 2 as amended requires "several rows of parallel flow distribution modules are positioned in between parallel members, and in which flow distribution modules can in addition be positioned on the outside surfaces of the members." Applicant illustrates an example of such an embodiment in Figure 8, where several rows of parallel flow distribution may provide four parallel sprays. (Paragraph [0125]). As mentioned above, Wichmann teaches a single spray system. Wichmann does not teach several rows of parallel flow distribution modules, and therefore claim 2 is not anticipated by Wichmann.

Claim 5 as amended requires "the electrostatic field follows a contour in a curved plane, by shaping the main vertical member and flow distribution modules and by having a similar contour in the target bars." (emphasis added). An example of such an embodiment is illustrated in Figure 10 for spraying a curved baking tray 78. (Paragraph [0131]). Wichmann teaches straight nozzles 25 and inductor bars 42 oriented along a generally straight plane. (Wichmann Fig. 2). Wichmann does not teach a curved plane, and therefore claim 5 is not anticipated by Wichmann

Claim 7 as amended requires "means for electrically insulating a flowable material supply system, that can operate continuously, and that supplies the flow distribution modules with controlled flows." The Examiner states that Wichmann "does not specifically state that the supply system is electrically insulated", and further relies on Miller (US Patent No. 2,695,002) for establishing that "the supply system of WICHMANN is inherently electrically insulating". (Page 5 of the Office Action of October 1, 2009). Miller states the general principal that "[i]f the liquid material has high conducting properties the entire liquid supply system must be insulated." (Miller, Col. 4, lines 75-77). The supply system of Wichmann is not inherently electrically isolating. Wichmann addresses electrical insulation by separating his nozzle assembly (20) from the flowable material plenum 127 using a mounting plate 44 made of an insulative material. (Wichmann, Col 5, lines 29-44). The mounting plate 44 is provided "to minimize the chances of the high voltage finding a path to ground along these structures." (Wichmann, Col 5, lines 42-44). Wichmann does not teach insulating the flowable material itself or the flowable material plenum 127.

Applicant discloses a variety of elements for electrically insulating the flowable material supply system including: insulating the pump 19, the motor 22, and the flowable material itself. (Paragraphs [0081] - [0106]). Applicant electrically insulates the pump 19, whereas Wichmann does not insulate the material plenum 127 or valves 124. (Wichman, Fig. 2). When spraying high conductivity materials, "[t]he pump will however accumulate charge and grounding will be needed for safety reasons when the pump or reservoir 14 needs to be accessed by personnel." (Paragraph ([0106]). An "[a]ctuator 33 can move contact 32 to touch contact 30, to electrically ground pump 19". (Fig. 1, Paragraph [0102]). Applicant electrically insulates the motor 22, whereas Wichmann does not electrically insulate the air pressure plenum 128 or valves 124. Charges developed by the motor 22 are electrically insulated from the pump by using a insulated shaft 21 and flexible couples 20 to couple the motor 22 to the pump 19. Applicant electrically insulates the flowable material, whereas Wichmann does not. The flowable material is pumped to a reservoir 5, then a series of insulated actuators 9, 13, 17 activates valves 7, 11, 15 to facilitate the flow of the fluid to the pump. (Paragraphs [0081-0091]). Additionally, reservoir 10 functions as an electrical barrier in that "[r]eservoir 10 can either be filled, or it can discharge and fill reservoir 14 through valve 11, rod 12 and actuator 13. But both operations can not occur at the same time." (Paragraphs ([0088-0089]). Wichmann does not teach means for electrically insulating a flowable material supply system, and claim 7 is not anticipated thereby.

Claim 10 as amended requires "the conductive surface further comprises at least one charging strip having solid thin conductive charge imparting parts covered by flow distribution modules." (emphasis added). The Examiner relies on Wichmann's (shim 112 and fingers 116) for satisfying the "conductive charge imparting parts" limitation. (Page 5 of the Office Action of October 1, 2009). The shim 112 taught by Wichmann includes a plurality of holes for allowing fluid flow and for fasteners. (Wichmann, Fig. 4). Such holes may cause electric losses or changes in the electrostatic field. Since Wichmann does not teach "solid thin conductive charge imparting parts", claim 10 is not anticipated thereby.

Claim Rejections - 35 U.S.C. § 103

Rejection of claims 3, 8-9, and 22 over Wichmann

Claims 3, 8-9, and 22 are rejected under 35 U.S.C. § 103(a) as being obvious over Wichmann. (Page 7 of the Office Action of October 1, 2009). Claims 3, 8-9 and 22 depend from claim 1. The Examiner relies on Wichmann for satisfying the limitations of claim 1. As stated above, claim 1 is not anticipated by Wichmann and therefore the Examiner's obvious rejection fails to satisfy all claim limitations.

Further, claim 3 requires "different flowable materials are submitted to the flow distribution modules . . . in which different flow rates are used for one or more flow distribution modules." The Examiner states that "WICHMANN does not specifically state that the plurality of flow modules could be supplied with different flowable materials or different flow rates. However, the mere alteration of these parameters would not alter the operation of the apparatus in a patentably distinct way (See MPEP 2144.04)." (Page 7 of the Office Action of October 1, 2009). Under MPEP 2144.04 "Legal Precedent as Source of Supporting Rationale", the MPEP states that "if the facts in a prior legal decision are sufficiently similar to those in an application under examination, the examiner may use the rationale used by the court." (MPEP 2144.04). Therefore, without specifying a legal precedent having sufficiently similar facts, the Examiner fails to make a prima facie case of obviousness under MPEP 2144.04. Applicant respectfully requests that the Examiner clarify which legal precedent he is relying on for this rejection.

Rejection of claim 4 over Wichmann in light of Daniel

Claim 4 is rejected under 35 U.S.C. § 103(a) as being obvious over Wichmann in light of Daniel (US Patent No. 4790155). (Page 8 of the Office Action of October 1, 2009). By this paper claim 4 has been cancelled and the limitations previously presented in claim 4 have been included in claim 1. Applicant addressed the Examiner rejections to claim 4 above with respect to the amended claim 1.

Rejection of claims 6 and 13 over Wichmann in light of Wichmann '336

Claims 6 and 13 are rejected under 35 U.S.C. § 103(a) as being obvious over Wichmann in light of Wichmann (U.S. Patent No. 5,503,336), hereinafter "Wichmann '336". (Page 9 of the Office Action of October 1, 2009). Claims 6 and 13 depend from claim 1. The Examiner relies on Wichmann for satisfying the limitations of claim 1. As stated above, claim 1 is not anticipated by Wichmann and therefore the Examiner's combination of Wichmann and Wichmann '336 fails to satisfy all claim limitations.

Further, claim 6 as amended requires "a distribution groove that is directly connected to each of a number of smaller parallel grooves aligned in the direction of the electrostatic field". The Examiner relies on Wichmann 336 's channels 35-36 for satisfying the distribution groove, and Wichmann 336's channels 37-96 for satisfying the parallel grooves. (Page 9 of the Office Action of October 1, 2009). Wichmann 336's channels 35-36 are not directly connected to each of the channels 37-96, rather channels 35 and 36 each branch off into two separate channels, which further branch off into additional channels. Since the combination of Wichmann and Wichmann 336 does not teach or suggest a distribution groove that is directly connected to each of a number of smaller parallel grooves, claim 6 is not obvious over the Examiner's combination.

Rejection of claims 12 and 21 over Wichmann in light of Valaskovic

Claims 12 and 21 are rejected under 35 U.S.C. § 103(a) as being obvious over Wichmann in light of Valaskovic (U.S. Patent Publication No. 2002/0175281), hereinafter "Valaskovic". (Page 10 of the Office Action of October 1, 2009). Claims 12 and 21 depend from claim 1. The Examiner relies on Wichmann for satisfying the limitations of claim 1. As stated above, claim 1 is not anticipated by Wichmann and therefore the Examiner's combination of Wichmann and Valaskovic fails to satisfy all claim limitations.

Further, claim 12 requires "the quick removal of the high voltage from the charging strip by means of the ground switch." The Examiner states that "WICHMANN does not disclose the quick removal of the high voltage from the charging strip by means of a ground switch." (Page 10 of the Office Action of October 1, 2009). The Examiner relies on Valaskovic for establishing that "it is known in the art that the spray from an electrospray system will quickly stop when the voltage is removed from the electrospray tip." *Id.* Valaskovic teaches a voltage adjustment technique and not a ground switch for removing the high voltage from the charging strip. Valaskovic expressly teaches away from grounding a high voltage in his electrospray system. Valaskovic states "the voltage suppled to a given nozzle is not simply switched from "on" when charging samples to the mass spectrometer to "off" at the completion of the sample charge". (Valaskovic, Paragraph [0013]). The combination of Wichmann and Valaskovic does not teach or suggest using a ground switch to remove high voltage, and claim 12 is nonobvious thereby.

Additionally, the voltage levels addressed by Wichmann are significantly greater than those addressed by Valaskovic. Wichmann teaches a nozzle assembly utilizing a high voltage between 40 - 65 kilovolts. (Wichmann, Col. 10, lines 7-24). Valaskovic provides an example illustrating the changes in voltage levels where "the 'on' voltage was set to 1800 volts . . . and [t]he "off" nozzle voltage was then set at 600 volts." (Valaskovic, Paragraph [0032]). Since the voltage levels are significantly different, it would not be obvious to try Valaskovic's voltage adjustment technique using Wichmann's nozzle assembly.

Claim 21 requires "grounding switches are provided as a means to remove the high voltage quickly from the charged parts." Claim 21 is novel and non obvious over the combination of Wichmann and Valaskovic for at least the reasons stated above with reference to claim 12.

Rejection of claims 14, 15, and 25 over Wichmann in light of Shvets

Claims 14, 15, and 25 are rejected under 35 U.S.C. § 103(a) as being obvious over Wichmann in light of Shvets et al. (U.S. Patent Publication No. 2002/0168297), hereinafter "Shvets". (Page 11 of the Office Action of October 1, 2009). Claims 14, 15 and 25 depend from claim 1. The Examiner relies on Wichmann for satisfying the limitations of claim 1. As stated above, claim 1 is not anticipated by Wichmann and therefore the Examiner's combination of Wichmann and Shvets fails to satisfy all claim limitations.

Further, claim 14 requires "a precise stacked metering pump". The Examiner relies on Shvets' syringe pump 10 for satisfying the limitations of the precise stacked metering pump. (Page 11 of the office action of October 1, 2009). However, the Examiner states that "[n]either WICHMANN nor SHEVETS discloses the use of stacked pumps. However the use of a stack of several pumps would represent a mere duplication of parts." *Id* at p. 12. Simply duplicating the single pumps taught by Wichmann and Shvets would be impractical due to packaging (space) concerns. Applicant's system having a stacked metering pump provides flexibility and control not taught by Wichmann and Shvets. (Paragraph [0063]). Therefore the combination of Wichmann and Shvets does not teach or suggest a precise stacked metering pump, and claim 14 is nonobvious thereby.

Claim 15 as amended requires "outlet lines connected to the precise stacked metering pump". Claim 15 is nonobvious over the combination of Wichmann and Shvets for at least the reasons stated above for claim 14.

Rejection of claim 20 over Wichmann in light of Miller

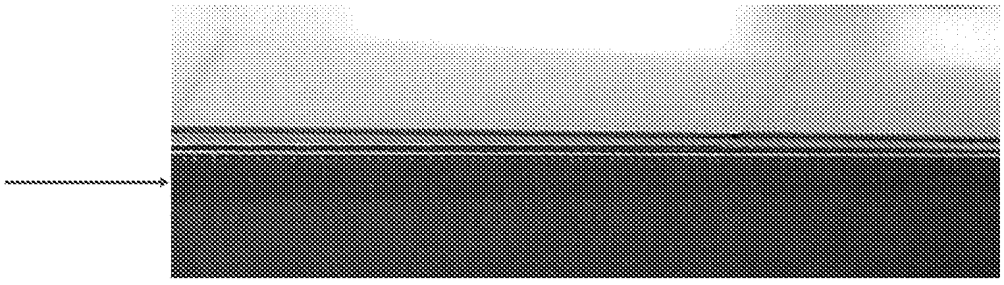
Claim 20 is rejected under 35 U.S.C. § 103(a) as being obvious over Wichmann in light of Miller et al. (U.S. Patent No. 5,516,354), hereinafter "Miller et al." (Page 13 of the Office Action of October 1, 2009). Claim 20 depends from claim 1. The Examiner relies on Wichmann for satisfying the limitations of claim 1. As stated above, claim 1 is not anticipated

by Wichmann and therefore the Examiner's combination of Wichmann and Miller fails to satisfy all claim limitations.

Claim 20 as amended requires "the spray system with flow distribution modules is illuminated in the area on the lips where ligament flow occurs during spraying, and a vision system is used to count the ligaments." (emphasis added). The Examiner states that "the use of a camera to analyze the flow from an electrospray apparatus is known in the art, as exemplified by MILLER, which discloses an electrospray apparatus (2) with a window (42) and an optical sensor (5) for generating and image of the spray". (Page 13 of the Office Action of October 1, 2009).

Miller et al. teaches a system having a camera 50 positioned in close proximity to an atomized plume of an individual nozzle ("the viewing orifice 46 is positioned . . . about 20 to 50 millimeters from the axis of the atomized plume. (Miller et al., Col. 4, lines 20-24). Placing a camera 20-50 mm from a high voltage source (40-65kV in Wichmann, Col. 10, lines 7-24) is not recommended due to arcing. The combination of Wichmann and Miller et al. does not teach or suggest a vision system for counting ligaments, and claim 20 is nonobvious over the Examiner's combination.

The following picture below shows an example of ligament flow from a flow module as described in the application.



Rejection of claims 16-18 over Wichmann in light of Seaver

Claims 16-18 are rejected under 35 U.S.C. § 103(a) as being obvious over Wichmann in light of Seaver et al. (U.S. Patent No. 5,326,598), hereinafter "Seaver". Claims 16-18 depend from claim 1. The Examiner relies on Wichmann for satisfying the limitations of claim 1. As stated above, claim 1 is not anticipated by Wichmann and therefore the Examiner's combination of Wichmann and Seaver fails to satisfy all claim limitations.

Claim 16 requires "the flowable material is sprayed on a belt or roll which subsequently transfers this material to a web of material". The Examiner relies on Wichmann's conveyor 30 for satisfying the "belt" limitation, and Seaver's web 43 for satisfying the web limitation. (Pages 13-14 of the Office Action of October 1, 2009). Wichmann teaches spraying products that are carried on a conveyor 160. (Wichmann, Col. 10, lines 1-6). Seaver teaches spraying a web "(a method to use a sprayhead 10 to coat a substrate 43 . . . which may be . . . in web form [and] . . . wrapped around a . . . drum 72.)" (Seaver, Fig. 8, Col. 11, lines 22-25). Neither Wichmann or Seaver teach or suggest spraying flow material on a belt then transferring the flow material from the belt to a web. (Paragraph [0135]). Since the Examiner's combination fails to satisfy all claim limitations, claim 16 is nonobvious over Wichmann and Seaver.

Claim 17 requires, "the web comprises two sides and the two sides of the web are coated by using two spray assemblies which spray downwards and through which the web is guided by rollers in an S configuration." The Examiner relies on Seaver's Figure 8 for satisfying the "S configuration". (Page 4 of the Office Action of October 1, 2009). Neither Wichmann or Seaver teach spraying both sides of a web using two downward spraying assemblies. The "S" configuration allows the spray of both sides of a web, without using an upward spraying assembly. (See Fig. 9). The combination of Wichmann and Seaver does not teach or suggest all of the claim limitations, and claim 17 is nonobvious thereby.

Claim 18 depends from claim 17 and is nonobvious over Wichmann and Seaver for at least the reasons stated above for claim 17.

Rejection of claim 23 over Wichmann in light of Olbrant

Claim 23 is rejected under 35 U.S.C. § 103(a) as being obvious over Wichmann in light of Olbrant et al. (U.S. Patent No. 3,775,806), hereinafter "Olbrant". (Page 15 of the Office Action of October 1, 2009). Claim 23 depends from claim 1. The Examiner relies on Wichmann for satisfying the limitations of claim 1. As stated above, claim 1 is not anticipated by Wichmann and therefore the Examiner's combination of Wichmann and Olbrant fails to satisfy all claim limitations.

Rejection of claim 26 over Wichmann in view of Daniel and Wichmann'336

Claim 26 is rejected under 35 U.S.C. § 103(a) as being obvious over Wichmann in view of Daniel and Wichmann '336. Claim 26 requires "the target bars that define the electro static field are separate from any catch trays and shaped to create different spray patterns." The Examiner relies on the inductor bars 42 of Wichmann for satisfying the limitations of the target bars. (Page 16 of the office action of October 1, 2009). As stated above with respect to claim 1, "[a] gapped spray is facilitated not only by the width of a flow distribution module but also by providing target bars that are separate from the normally used catch trays and the like, and that are shaped to define the gapped spray pattern." (Paragraph [0067]). The the combination of Wichmann, Daniel and Wichmann '336 does not teach or suggest shaped target bars and claim 26 is nonobvious thereby.

Conclusion

In view of the foregoing, the Applicant respectfully asserts that the application is in condition for allowance, which allowance is hereby respectfully requested.

Please charge any fees or credit any overpayments as a result of the filing of this paper to our Deposit Account No. 02-3978.

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